



Attorney Docket No. 5308-279

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Sei-Hyung Ryu

Serial No.: 10/698,170

Filed: October 30, 2003

Group Art Unit: 2811

Confirmation No. 2502

For: *Vertical JFET Limited Silicon Carbide Power Metal-Oxide Semiconductor Field Effect Transistors And Methods Of Fabricating Vertical JFET Silicon Carbide Metal-Oxide Semiconductor Field Effect Transistors*

Date: February 18, 2004

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Sir:

Attached is a list of documents on Form PTO-1449, together with a copy of any listed foreign patent document and/or non-patent literature. A copy of any listed U.S. patent and/or U.S. patent application publication is not provided herewith in accordance with the waiver by the U.S. Patent and Trademark Office of requirements under 37 C.F.R. § 1.98(a)(2)(i) for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC § 371 after June 30, 2003.

It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. § 1.56 and Section 609 of the MPEP.

No fee is believed due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,

Rohan G. Sabapathypillai
Registration No. 51,074

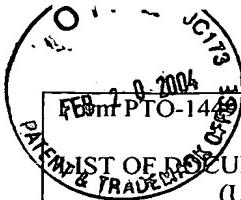
Myers Bigel Sibley & Sajovec, P.A.
P. O. Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
Facsimile: (919) 854-1401

Customer No. 20792

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450, on February 18, 2004.

Michele P. McMahan



U.S. Department of Commerce Patent and Trademark Office LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)				Attorney Docket No. 5308-279	Serial No. 10/698,170		
				Applicant: Sei-Hyung Ryu			
				Filing Date: October 30, 2003	GAU: 2811		
U.S. PATENT DOCUMENTS							
Examiner Initials		Document No.	Date (m/d/y)	Name	Class	Subclass	Filing Date if Appropriate
	1	6,610,366	8/26/03	Lipkin	427	378	4/12/01
	2	6,316,791	11/13/01	Schorner et al.	257	77	
	3	6,228,720	05/08/01	Kitabatake et al.	438	268	
	4	5,877,045	3/2/99	Kapoor	438	151	
	5	5,739,564	4/14/98	Kosa et al.	257	298	
	6	5,587,870	12/24/96	Anderson et al.	361	313	
	7	5,479,316	12/26/95	Smrtic et al.	361	322	
	8	2002/0102358	8/1/02	Das et al.	472	376.2	10/26/01
	9	2002/0030191	3/14/02	Das et al.	257	77	6/12/01
	10	2002/0038891	4/4/02	Ryu et al	257	350	6/24/01
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation (Yes/No)
	11	WO99/63591	12/9/99	PCT			
	12	WO 98/02924	01/22/98	PCT			
	13	WO 00/13236	03/09/00	PCT			
OTHER DOCUMENTS							
	14	Bhatnagar et al. "Comparison of 6H-SiC, 3C-SiC, and Si for Power Devices," <i>IEEE Transactions on Electron Devices</i> , Vol. 40, No. 3, March 1993, pp. 645-55.					
	15	Baliga, Power Semiconductor Devices, Chapter 7, PWS Publishing, 1996					
	16	United States Provisional Patent Application Serial No. 60/435,212					
	17	United States Provisional Patent Application Serial No. 60/294,307					
	18	United States Patent Application Serial No. 10/422,130					
	19	Mutin, P. Herbert, "Control of the Composition and Structure of Silicon Oxycarbide and Oxynitride Glasses Derived from Polysiloxane Precursors," <i>Journal of Sol-Gel Science and Technology</i> . Vol. 14 (1999) pp. 27-38.					
	20	del Prado et al. "Full Composition Range Silicon Oxynitride Films Deposited by ECR-PECVD at Room Temperatures," <i>Thin Solid Films</i> . Vol. 343-344 (1999) p. 437-440.					
	21	Kobayashi et al. "Dielectric Breakdown and Current Conduction of Oxide/Nitride/Oxide Multi-Layer Structures," <i>1990 IEEE Symposium on VLSI Technology</i> . pp. 119-120.					
	22	Ma et al. "Fixed and trapped charges at oxide-nitride-oxide heterostructure interfaces formed by remote plasma enhanced chemical vapor deposition," <i>J. Vac. Sci. Technol. B</i> . Vol. 11, No. 4, Jul/Aug 1993, pp. 1533-40.					
	23	Dimitrijev et al., "Nitridation of Silicon-Dioxide Films Grown on 6H Silicon Carbide", <i>IEEE Electronic Device Letters</i> , Vol. 18, No. 5, May 05, 1997, pp. 175-177.					
	24	De Meo et al., "Thermal Oxidation of SiC in N ₂ O", <i>J. Electrochem. Soc.</i> , Vol. 141, 1994, pp. L150-L152.					
	25	Dahlquist et al. "A 2.8kV, Forward Drop JBS Diode with Low Leakage," <i>Materials Science Forum</i> , Vols. 338-342, (2000) pp. 1179-82.					
	26	Mondal et al. "An Integrated 500-V Power DSMOSFET/Antiparallel Rectifier Device with Improved Diode Reverse Recovery Characteristics," <i>IEEE Electron Device Letters</i> , Vol. 23, No. 9, September 2002, pp. 562-4.					
	27	Motorola Power MOSFET Transistor Databook, 4th edition. Motorola, INC., 1989, pp. 2-5-4 - 2-5-7.					
	28	Ryu et al. Article and Presentation: "27 mΩ-cm ² , 1.6 kV Power DiMOSFETs in 4H-SiC," <i>Proceedings of the 14 International Symposium on Power Semiconductor Devices & ICs 2002</i> , June 4-7, 2002, Santa Fe, NM.					
	29	Chung et al. "Effects of anneals in ammonia on the interface trap density near the band edges in 4H-silicon carbide metal-oxide-semiconductor capacitors," <i>Applied Physics Letters</i> . Vol. 77, Nov. 27, 2000, pp. 3601-3.					
	30	Williams et al. "Passivation of the 4H-SiC/SiO ₂ Interface with Nitric Oxide," <i>Materials Science Forum</i> . Vols. 389-393 (2002), pp. 967-72.					

Examiner:

Date Considered:

Examiner:

Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.